ARANEAE FROM REEVESBY ISLAND, SOUTH AUSTRALIA<br>by V. V. Hickman, B.A., D.sc.<br>(Communicated by Professor J. S. Turner)<br>[Read io April 1947]


#### Abstract

Twenty-three species of spiders from Reevesby Island, South Australia, are recorded. These represent 18 differeut families. Most of the species are well-known forms occurring on the mainland. Five, however, are new, namely Neomatachia tubicola, Odo gracilis, Lampona asperrima, Gamasomorpha banksi, and Gamasomor phe clarki. The first named species forms the type of a new genus, Neomatachia, in the Psechridae. The new species are described and a revised description of Stovena variggata, O.P. Cambridge, is also given


## Introduction

The present paper deals with a small collection of spiders made by members of the McCoy Society for Field Investigation and Research during their cxpedition to the Sir Joseph Banks Islands in December 1936. All the specimens were collected on Reevesby Island. As might be expectcd most of the spiders are well-known Southern Australian species.

$$
\begin{aligned}
& \text { Descriptions of Genera and Species } \\
& \text { Subordcr MYGALOMORPHAE. } \\
& \text { Family CTEnIzIDAE, } \\
& \text { Genus Missulena Walckenaer, ISo5. } \\
& \text { Missulena sp. }
\end{aligned}
$$

The collection contained a single spider belonging to this genus, but the specimen was too immature for the species to be identified with certainty. Locality: Reevesby Island. Dccember 1936. I pullus.

Family Dipluridae.
Genus Chenistonia Hogg, 1 gor.
Chenistonia major Hogg.
Chenistonia major Hogg, Proc. Zool. Soc. London, 1901, p. 263.
The present spccimen is somewhat larger than the type and lacks the three or four small spines on the labium. In other respects it agrees vcry closely with the description given by Hogg.

Locality: Reevesby Island. December 1936. D. J. Mahony, iq
Family Barychelidae
Genus Lampropodus Rainbow and Pullcine, Igr8.
Lampropodus scintillans Rainbow and Pulleine.
Lampropodus scintillans Rainbow and Pulleine, Records Aust. Mus. XII. 7. 1918, p. 135 .

Locality: Reevesby Island. December 1936. J. Clark, if (pullus).
Suborder DIPNEUMONOMORPHAE.
Family Amaurobiddae.
Genus Ixeuticus Dalmas, 1918 .
Ixeuticus robustus (L. Koch).
Amaurobius robustus L. Koch, Arachn.Austral. r872, p.331:
Locality: Reevesby Island. December 1936. J. Clark, I우, I pullus.

Family Psechridae.
Genus Neomatachia nov.
Cribellum and calamistrum present. Cribellum entire. Thoracic groove longitudinal. Chelicerae large, projecting forwards, provided with scopula and lateral condyles. Maxillae long and parallel. Labium longer than wide extending beyond the middle of the maxillae. Third pair of legs directed forwards. Front legs longer than others. Fourth tarsi much shorter than other tarsi. Three tarsal claws. Upper claws with a single row of teeth. Claw-tufts and tarsal scopulae absent. Trichobothria on tibiae, mctatarsi and tarsi Eight eyes in two rows, homogeneous, diumal. Tracheal spiracle near spinnerets. Tracheal system limited to the abdomen.

Genotype: Neomatachia tubicola sp. nov.
Neomatachia tubicola sp. nov.

|  | Total length |  |  |  | $7 \cdot 308$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Length of carapace |  | . | .. - | $2 \cdot 900$ |  |
|  | Width of carapace |  | . | .. - | I $\cdot 624$ |  |
|  | Length of abdomen |  |  | . . . | $4 \cdot 466$ |  |
|  | Width of | domen | -. | .. - | I. |  |
| Leg | Femur | Patella | Tibia | Metatarsus | Tarsus | Total |
| 1. | $1 \cdot 914$ | 0.928 | $1 \cdot 856$ | $2 \cdot 088$ | $1 \cdot 160$ | $7 \cdot 946$ |
| 2. | I. 740 | 0.870 | I 740 | I•798 | $1 \cdot 044$ | 7-192 |
| 3. | $1 \cdot 450$ | - 0.754 | $1 \cdot 160$ | $1 \cdot 218$ | 0.696 | $5 \cdot 278$ |
| 4. | I. 508 | 0.870 | 1.334 | I. 276 | 0.580 | $5 \cdot 568$ |
| Palp | I $\cdot 160$ | 0.464 | 0.638 |  | $0 \cdot 986$ | $3 \cdot 248$ |

Colour (in alcohol). Carapace and chelicerae dark reddish brown. Maxillat labium and sternum somewhat lighter reddish brown. Legs yellow with hrow bands on femora, patellae and tibiac. Abdomen dull yellow with a mediat brown area on the anterior dorsal half. On cach side towards the front is al elongate brown patch. This is followed by three oblique brown bars, of whic the front two on each side are connected at their dorsal ends. Lung cover and region in front of the epigynum light brown. A wide median brown ban extends from the epigastric furrow to the spinnerets (Figs. I and 3).

Carapace. Long, with almost parallel sides. Front margin very slightl recurved. Posterior margin rounded and not emarginate. Surface smootl shining and devoid of hairs except for a few minute ones scattered on the ccphali part. Thoracic groove longitudinal. Front end of the groove is $2 / 3$ of the lengt of the carapace from the anterior margin.

Eyes. Eight, arranged in two rows. The front row is slightly recurved the posterior row straight. The eyes are about equal in size. AME separate from each other by $7 / 9$ and from ALE by $15 / 9$ of their diameter. PME separate from each other by $12 / 9$ and from PLE by $15 / 9$ of their diameter. PLE separ ated from ALE by $6 / 9$ of their diameter. The median ocular quadrangle wider behind than in front in ratio $27: 25$. Its length is equal to its width front. Height of clypeus in front of AME is slightly less than the diameter AME.

Chelicerae. Very large, powerful and projecting forward like those Matachia. In front they are slightly granular, each granule carrying a minut seta. Margins long and very oblique. The promargin has four teeth, of whic the second basal tooth is the largest. The retromargin has two teeth which at situated nearer the base of the fang than are those of the promargin. Fan measures 1.160 mm . long. It is slightly sinuous and has a ventral groove. Tt paturon measures 2.146 mm . long. Lateral condyles are strongly develope (Fig. 2).


Fig. I. Dorsal view of female
Fig. 2. Retrolateral view of left chelicera of female
Fig. 3. Ventral view of female

Fig. 4. Fourth metatarsus showing calamistrum Fig. 5. Epigynum

Maxillae. Smooth, shining and sparsely elothed with short brown hairs Very long, their length being equal to that of the sternum. Parallel, rounded at apex. A light scopula on inner anterior margin. A well developed serrula extends from the scopula round the apex and, for a short distance, onto the outer margin (Fig. 3).

Labiun. Smooth, shining and longer than wide in ratio $4: 3$ Extends wel beyond the middle of the maxillae. Sparsely clothed with a few minute hairs Apex truncate and fringed with a few coarse black hairs.

Sternum. Shield-shape, slightly convex, longer than wide in ratio 26 : 88 Truncate in front. Widest between first coxae. Pointed posteriorly. Smooth shining and clothed with a few small hairs. Margin rebordered (Fig. 3).

Legs. I. 2. 4. 3. Third pair direeted forward like those of the Segestriidae Femora, patellae and tibiae lightly clothed with short brown hairs; metatars and tarsi more densely elothed especially on the ventral surface. Tarsi of fourt pair of legs much shorter than other tarsi. Four trichobothria on each side of the dorsal surface of the tibiae and four in a single row on the first threc metatarsi The fourth metatarsus has only two. These are situated between the end of the calamistrum and the apex of the segment. Each tarsus has a single row 0 four trichobothria, which increase in length towards the apex. The calamistrun is composed of a single row of hairs and occupies about $5 / 7$ of the length the metatarsus (Fig. 4). Tarsal claws three. Upper elaws similar and witt seven teeth. The lower elaw is strongly bent and has one long and one short tooth. True spurious elaws are absent but a pair of barbed setae are present ou each tarsus. Tarsal scopula and elaw-tufts are laeking. Spines are arrange as follows. First leg.-Femur : dorsal I bristle. Patella o. Tibia : dorsal prolateral I-I-I, retrolateral 1 -O-I, ventral 0 . Metatarsus: dorsal I-0.2 prolateral i-i-i, retrolateral i-o-i, ventral i-i-i. Tarsus o. Second leg.Femur : dorsal I bristle. Patella o. Tibia: dorsal o, prolateral i-o-o, retro lateral I-0-0, ventral 0 . Metatarsus: dorsal 0-1-2, prolateral I-O-I, retro lateral i-o-I, ventral i-I-I. Tarsus o. Third leg.-Femur: dorsal i bristle Patella o. Tibia: dorsal o, prolateral I-0-0, retrolateral I-O-I, ventral Metatarsus : dorsal o-1-2, prolateral o, retrolateral 0-I-o, ventral I-I-2. Tarsi: o. Fourth leg.-Femur ; dorsal I bristle. Patella o. Tihia o. Mctatarsus ventral I-I-I, elsewhcre 0 . Tarsus 0.

Palp. Long. Tarsus with three rentral spines and thickly elothed wit hairs. Claw with four teeth. Trichobothria on tibia and tarsus.

Abdomes. Somewhat cylindrieal, elothed with short fine hairs. Spinneret slightly in front of posterior end. Cribellum not divided. Anterior spinnerei short, very wide at the base and much larger than the others. Anal tuberd well developed. Epigynum has the form shown in Fig. 5.

## Locality. Reevesby Island. December 1936. J. Clark if.

Neomatachia tubicola resembles the Ncw Zealand spider, Matachia ramulical Dalmas, in the form of the chelicerae, maxillae, labium, sternum, cribellu and spinnerets. It differs from that species in having a longitudinal instead a transverse thoracic groove, in the posterior row of eyes being straight instea of procurved and in the length of the calamistrum relative to that of the fout metatarsus. Neonatachia tubicola also occurs in Tasmania. Here it lives holes in dry twigs, especially in the tumnels made in dead wattle-trees by wood boring beetles and other insects. A web is spun from the entrance of the tunne The forward direction of the third pair of legs is no doubt correlated with the tube-dwelling habit.

Family Agalenidae.
Genus Desis Walckenaer, 1837.
Desis kenyonae Pocock.
Desis kenyonae Pocock, Proc. Zool. Soc, London r90z, p.roz.
This spider is a littoral species which lives in carities in shells and rocks between high and low tide marks. It was originally recorded from Westernport Bay in Victoria.

Locality: Reevesby Island. December 1936. D. J. Mahony, iq. J. Clark, I P .

Family Lycosidae
Genus Lycosa Latreille, 1804.
Lycosa candicans L. Koch.
Lycosa candicans L. Koch, Arachn. Austral., 1877, p. 888.
Locality : Reevesby Island. December 1936. J. Clark, If
Lycosa laeta, L. Koch.
Lycosa laeta L. Koch, Arachn. Austral., 1877, p. 944.
Taventula laeta T. Thorell, Annali del Mus. Civ. di St. Nat. Genova. I88r, p. 382.
Locality: Reevesby Island. December, 1936. D. J. Mahony, Iơ, Iq
Family Oxyopidae.
Genus Oxyopes Latreille, 1804 .
Oxyopes elegans L. Koch.
Oxyopes elegans L. Koch, Arachn. Austral., 1878, p. 1008.
Locality: Reevesby Island. January, 1937. K. Croll, If
Family Zodariddae.
Genus Storena Walckenaer, 1805.
Storena formosa T. Thorell.
Storena formosa T. Thorell, Oefv. Kongl. Vet.-Akad. Forh., 1870, p. 374.
Habronestes formosus L. Koch, Arachn. Austral. 1872, p. 314.
Locality: Reevesby Island. December, 1936. D. J. Mahony, 3 ㅇp. J. Clark, 1 O.

Storena variegata O. P. Cambridge.
Stovena variegata O. P. Cambridge, Ann. Mag. Nat. Hist. Vol. IfI, i869, p. 53.
Cambridge's account of this species omits many important features. The following revised description is therefore given.
Female. Measurements in millimetres :

| Total length | . | . | . | . | . | $7 \cdot 500$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Length of carapace | . | . | . | . | . | $3 \cdot 190$ |
| Width of carapace | . | . | . | . | . | 1.914 |
| Length of abdomen | . | . | . | . | . | 4.350 |
| Width of abdomen | . | . | . | . | . | 2.030 |


| Leg | Femur | Patella | Tibia | Metatarsus | Tarsus | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1.798 | 0.870 | 1.392 | I. 160 | 0.928 | 6.148 |
| 2. | 1.566 | 0.812 | I. 044 | I. I60 | 0.870 | $5 \cdot 45^{2}$ |
| 3. | I. 450 | 0.696 | 0.870 | I. 334 | 0.870 | $5 \cdot 220$ |
|  | $\mathrm{I}^{191} \mathrm{I}_{4}$ | 0.986 | I. 450 | 2.088 | I. 160 | $7 \cdot 598$ |
| Palp, | 0.986 | 0.522 | 0.464 | - | 0.696 | $2 \cdot 668$ |



Storena variegata O. P. Cambridge
Fig. 6. Antero-dorsal view of eyes
odo gracilis sp.
Pig. 9. Dorsal view of eyes of male
ale
Fig. 10. Ventral view of left palp of male
Lampona asperrina sp, nov.
Fig. If. Retrolateral view of right palp of male

Colour (in alcohol). Carapace and chelicerae dark brown. Labium and ternum brown. Coxae yellow. Femora reddish brown. Other segments of the egs yellowish above, brown at the sides. Abdomen black, variegated with rregular yellowish markings above, below and at the sides. On the front half of the dorsal surface is a wide median black band with a yellowish area on each ide. The black band is followed by a median row of alternating black and creanı hevrons. These fuse with the markings at the sides giving a somewhat conused pattern. Ventral surface has two longitudinal yellowish bands separated jy a median black band extending to the middle of the abdomen. Spinnerets rellowish brown. The group is almost surrounded by an irregular black ring. in front of the spinnerets is a triangular black patch enclosing tlree yellow pots. The apex of the triangle points towards the spinnerets.

Carapace. Long oval, rounded and slightly narrowed in front, widest jetween second coxae, not emarginate behind. Margin sliglitly rebordered and vithout hairs. Surface smooth, clothed with a few short scattered lairs on the ephalic part. Thoracic groove longitudinal, front end of groove $5 / 8$ of the ength of the carapace from the edge of the clypeus.

Eyes. Eight, arranged in two strongly procurved rows. The three indirect yes of each side form an incurved line. Ratio of eyes AME : ALE : PME : PLE $=8: 10: 7: 11$. AME are separated from each other by $4 / 8$ and from ALE y $10 / 8$ of the diameter of AME. The PME are separated from each other by t/8 and from PLE by $13 / 8$ of the diameter of AME. The median ocular quadangle is slightly wider in front than behind in ratio $20: 18$, and is longer than ts width in front in ratio $25: 20$. The height of the clypens in front of ALE s $35 / 8$ of the diameter of AME. There are a few black curved hairs in front of he eyes. The arrangement of the eyes is shown in Fig. 6.

Chelicerae. Strong, conical, sloping slightly backward, thickly clothed with oarse black hairs in front. A large yellowish lateral condyle is present on each ide. Fang very short and stout. A single minute tooth on promargin, none in retromargin. A pair of brown triangular sclerites are present in the soft nembrane between the edge of the clypeus and the base of the chelicerae.

Maxillae. Triangular, converging in front of labium, apical half and outer ides lightly clothed with black hairs. A small scopula near apex. Serrula absent.

Labium. As wide as long. Extending beyond the middle of the maxillae. Excavated on each side at base. Clothed with a few black hairs. Apex rounded.

Sternum. Shield-shape, longer than wide in ratio $25: 21$, widest between econd coxae, truncate in front, pointed behind. Surface shining and clothed rith a few black hairs. Margin slightly rebordered. Posterior coxae almost ontiguous.

Legs. 4. I. 2. 3. Lightly clothed with brownish hairs. Trichobothria in a ingle row on tarsi and metatarsi and in two rows on tibiae. Tarsal claws three ; he upper claws similar and armed with 7 teeth ; the lower claw small and withut teeth. Scopulae, claw tufts and spurious claws absent. Spines on the legs re arranged as follows. First and Second legs are without spines except for 2-2 in the ventral side of the metatarsi. Third leg.-Femur o. Patella: dorsal I-I, rolateral I-T, retrolateral I, ventral o. Tibia: dorsal I-I-I-I, prolateral I-I, etrolateral I-I, ventral $2-2$ bristles and 2 spines at apex. Metatarsus: dorsal -I-O, prolateral I-I-I, retrolateral I-I-I, ventral 2-2-2. Tarsus: dorsal O , rolateral I-I, retrolateral I, ventral 2-2. Fourth leg.-Femur o. Patella: orsal o-r, prolateral I-I, retrolateral r, ventral 0 . Tibia: dorsal I-I-I-T, rolateral I-I, retrolateral I-I, ventral $2-2$ bristles and 2 spines at apex. Metaarsus: dorsal $\mathrm{O}-\mathrm{I}-\mathrm{O}$, prolateral $\mathrm{I}-\mathrm{I}-\mathrm{I}$, retrolateral $\mathrm{I}-\mathrm{I}-\mathrm{I}$, ventral I-I-I-T. arsus: doral 0 , prolateral I-I, retrolateral 0 , ventral I-2-I-2.

Palp. Lightly clothed with brown hairs. Trichobothria on tibia and tarsus. Tarsal claw slightly curved and provided with teeth. There are nine or ten spines on the prolateral side of the tarsus; clsewhere 0.

Abdomen. Oval, clothed with brownish hairs. Epigynum has the form shown in Fig. 7. Spinnerets six, short and conical. The anterior pair about twice the length of the posterior pair. Anal tubercle well developed.

Locality: Recvesby Island. December 1936. J. Clark, Iq, 5 pullus.

## Family Argiopidae.

Genus Araneus Clerk, 1757.
Araneus pustulosus (Walckenaer).
Epeira pustulosa Walckenaer, Hist. nat. Ins, Apt. II, I837, p. I32.
Avaneus pustulosus Dalmas, Ann. Soc. Ent. France, LXXXVI, 19I7r p. 379.
This spider is widely distributed in Australia and New Zealand. It is extremely variable in colouration and has been described under a large number of different names. Its synonyms are discussed by Dalmas in the journal mentioned above.

Locality: Reevesby Island. January 1937. K. Croll, Iô, Iq.

## Family Hersilitdae.

Genus Tama Simon, 1882.

## Tama brachyura, Simon.

Tama brachyura Simon, Die Fanna Süt-west Austr., I, 1908, p. 406.
Locality: Reevesby Island. December 1936. J. Clark, If.
Family Ctenidae.

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\text { Genus Odo Keyserling, } 1887 .
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Odo gracilis sp. nov.
Male. Measurements in millimetres:


Colour (in alcohol). Carapace yellowish, with a dark brown area on each side of the thorax, the two areas merging behind the thoracic groove and extending forward to the cervical groove, where they are joined by a longitudinal dark brown streak extending backward from PLE. Sides of head region pale yellow. Ocular area and margin of clypeus almost black. The cholicerae yellowish with a dark brown patch in front. Legs yellowish brown with dark brown rings round femora and tibiae. Maxillae, labium and sternum pale yellow. Abdomen yellowish speckled and streaker with dark brown at the sides and underneath. The dorsal surface is ornamented with a dark brown median band extending from the front for about $2 / 3$ of the length of the abdomen. The median band is followed by a series of broken transverse brown bars Spinnerets palc yellow (Fig. 8).

Carapace. Pyriform in outline, somewhat truncate in front. Highest in region of thoracic groove, whence it slopes steeply to the posterior margin. Thoracic groove longitudinal and deep. Iront of the groove is about half the length of the carapace from the edge of the clypeus. Thoracic region is fringed with white silky hairs at the sides and behind. The surface of the carapace is clothed with white or pale yellow hairs intermingled with a few brown hairs on the dorsal part of the head region and on the dark brown areas.

Eyes. Eight. When viewed from above they appear to be arranged in two very strongly recurved rows (Fig. 9). The ALE are much the smallest of the group. Ratio of eyes AME : ALE : PME: PLE $=12: 7: 9: 12$. AME project slightly in front of the clypeus. They are separated from each other by $4 / 12$ and from ALE by $2 / \mathrm{L} 2$ of their diameter. PME separated from each other by $8 / 12$ and from PLE by $9 / 12$ of the diameter of AME. Distance between PLE and ALE is equal to $10 / 12$ of the diameter of AME. The median ocular quadrangle is slightly wider in front than behind in ratio $28: 26$ and its length is greater than its anterior width in ratio $29: 28$. The height of the clypeus in front of AME is equal to $9 / 12$ of the diameter of AME.

Chelicerae. Strong, vertical and parallel. Clothed in front with white hairs. Lateral condyles well devcloped. Fang curved and moderately long. Furrow oblique, Retromargin with two small teeth; promargin with three teeth, of which the median is the strongest. Scopula on promargin only.

Maxillae. Almost straight, widest in the middle, narrowing towards base and apex. Scopula on inner margin ends in a tuft of hairs at the apex. Serrula short and fine.
L.abium. As wide as long, not reaching middlle of maxillae. Without lateral excavations. Somewhat truncate and furnished with a few black hairs in front.

Sternum. Broadly oval, slightly convex, pointed bchind, and clothed with pale yellow silky hairs. Longer than wide in ratio $30: 28$. Widest immediately behind second cosae. Fourth coxae almost contiguous. All trochanters notched.

Legs. 4.3.2. r. Long and slender. The fourth pair much longer than the others. Clothed with white silky hairs on coxae and femora, and with white hairs and brown bristles on other segments. Trichobothria in two rows on tibiae and tarsi, in one row on metatarsi. All tarsi scopulate to base. Metatarsi with a light scopula decreasing in density towards base. Claw-tufts weakly developed. Tarsal claws 2, similar, with about 8 pectinations. Spines are present on all legs and are arranged as follows: First leg. Femur: dorsal I-I-I, prolateral I-I-I, retrolateral I-I-I-I, ventral o. Patella o. Tibia: dorsal I-I-I, prolateral I-I, retrolateral I-I, ventral 2-2-2. Metatarsus : dorsal I-I-O, prolateral I-I-O, retrolateral I-I-0, ventral 2-2-0. Tarsus o. Second leg. Femur: prolateral I-I-I-I. Metatarsus: dorsal o-I-O. Other spines as on first leg. Third leg. Femur : dorsal I-I-I, prolateral I-I-I-I, retrolateral I-I-I-I, ventral o. Patella o. Tibia: dorsal I-I, prolateral I-I, retrolateral I-I-I, ventral 2-2-2. Metatarsus: dorsal I-I-2, prolateral I-I-0, retrolateral I-1-0, ventral 2-2-1. Tarsus o. Fourth leg. Femur: dorsal I-I-I, prolateral I-I-I-I, retrolateral I-I-I, ventral o. Patella o. Tibia as for third leg. Metatarsus : dorsal I-I-2, prolateral I-I-I, retrolateral I-I-I, ventral 2-2-I. Tarsus o.

Palp. The genital bulb has the form shown in Fig. Io. Tibia is short and, on the retrolateral side, forms a stout apophysis, the distal surface of which has a deep groove. The dorsal margin of the groove is produced laterally into a small curved hook ; the ventral margin ends in a short point. The embolus terminates in a black twisted point near the tip of the palp. At the base of the bulb it is produced into a long curved apopliysis, which bends round the bulb towards the prolateral side. The spines on the palp are arranged as follows :


Gamasomorpha banksi sp. nov.
Fig. 12. Dorsal view of head region of male showing the eyes and arrangement of hairs Fig. 13. Ventral view of thaxillae, stemum and abdomen of male
Fig. 14. Retrolateral view of right palp of male
Gamasomorpka clarki sp. nov.
Fig. 15. Dorsal view of cyes of male
Fig. r6. Ventral view of maxillae, sternum and abdomen of male
Fig. 17. Retrolateral view of right palp of male

Femur: dorsal I-I-I, prolateral I apical, retrolateral I apical, ventral 0. Patella: dorsal I-I, prolateral I, elsewhere 0 . Tibia: prolateral I, elsewhere 0. Tarsus 0.

Abdomen. Long oval. Fringed anteriorly with curved bristle-like brown hairs. The rest of the surface is clothed with fine white silky hairs intermingled with short brown hairs on the darker areas. Spinnerets six, long and cylindrical, projecting beyond the end of the abdomen. The anterior pair measure 0.986 mm . long and the posterior pair 0.812 mm . The apical segment is very short, conical and sunk in the end of the basal segment.

Locality: Reevesby Island. December 1936. J. Clark, 2ở. D. J. Mahony, I pullus.

Family Eusparassidae.
Genus Delena Walckenaer, 1837.
Delena cancerides Walckenaer.
Delena cancerides Walckenaer, Hist. nat. Ins. Apt. I, 1837, p. 490.
Locality: Reevesby Island. December 1936. J. Clark, 4 pullus.

> Genus Olios Walckenaer, 1837.
> Olios pictus (L. Koch).

Heteropoda picta. L. Koch, Arachn. Austral., I, i875, p. 7 I4. Neosparassus pictus Hogg, Proc. Zool. Soc. London, 1902, p. 428.

Locality: Reevesby Island. December 1936. J. Clark, Iô.
Family Thomisidae.
Genus Sidyma Simon, 1895. Sidyma sp.
Locality: Reevesby Island. December 1936. J. Clark, 4 pullus.
Family Drassodidae (Drassidae). Genus Lampona T. Thorell, 1870.
Lampona cylindrata (L. Koch).
Lampona obscena L. Koch, Arachn. Austral., I, 1873. p. 376.
Lampona cylindrata L. Koch, Arachn. Austral. I, 1873. P. 373.
Lampona cylindrata Dalmas, Ann. Soc. Ent. Erance, Vol. LXXXVI, 1917, p. 350.
Locality: Reevesby Island. December 1936. J. Clark, I ${ }^{\text {T. }}$

## Lampona asperrima sp. nov.

Male. Measurements in millimetres:

|  | Total length Length of carapace Width of carapace Length of abdomen Width of abdomen |  |  |  | $\begin{array}{ll} \therefore & 6 \cdot 1 \\ \therefore & 2 \cdot 6 \\ \cdots & 1 \cdot 5 \\ \cdots & 3 \cdot 1 \\ \therefore & 1 \cdot 4 \end{array}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Leg | Femur | Patella | Tibia | Metatarsus | Tarsus | Total |
| 1. | 1.450 | 0.870 | 1.218 | 0.812 | 0.638 | 4.988 |
| 2. | 1-334 | 0.812 | I 160 | 0.812 | 0.696 | $4 \cdot 814$ |
| 3. | I 160 | 0.580 | 0.812 | 0.812 | 0.464 | $3 \cdot 828$ |
| 4. | I. 624 | 0.812 | I. 334 | I 276 | 0.696 | $5 \cdot 742$ |
| Palp | 0.696 | 0.232 | 0.232 | - | 0.522 | I 682 |

Colour (in alcohol). Carapace and chelicerae reddish black. Sternum dull red in the middle becoming darker towards the margin. Labium and maxillae
orange red. Legs yellow, except the coxae and the first two femora which are orange brown. Dorsum of abdomen black, with a transverse row of four irregular white spots tending to form a band across the middlc. A white spot above spinnerets. Dorsal scute orange brown. Sides of abdomen white. Ventral surface white, with a median longitudinal dark patch in front of spinnerets. Epigastric scute orange. Spinnerets white.

Carapace. Long oval, narrowed in front, widest immediately behind the second coxae. Posterior margin rounded and not emarginate. Thoracic groove longitudinal and well marked. The whole surface coarsely granular and clothed with a few minute hairs.

Eyes. Eight, arranged in two rows. Posterior row straight and slightly longer than the front row. When viewed from above the front row is slightly recurved but when viewed from the front it is strongly procurved, the ALE being much nearer the margin of the clypeus than are the AME. Ratio of eyes AME : ALE : PME: PLE=7:7:11:7. AME dark coloured, all the other eyes are pearly white. AME separated from each other by $3 / 7$ and from ALE by $1 / 7$ of their diameter. ALE separated from PLE by a space equal to the diameter of AME. The PME separated from each other and from PLE by $1 / 7$ of the diameter of AME. The PME are almost round, very slightly angular. Median ocular area is wider behind than in front in ratio 22: 16. Its posterior width is greater than its length in ratio $22: 20$. Height of clypeus in front of AME is equal to $9 / 7$ of the diameter of AME.

Chelicerae. Conical, 0.6576 nm . long. Fang short and curved. Two teeth and a light scopula on promargin. Retromargin indistinct.

Maxillae. Slightly converging. Outer margin gently rounded. Ventral surface slightly depressed. A light scopula on inner side of apex.

Labium. Triangular, longer than wide in ratio $7: 6$. More than half the length of the maxillae. Apex truncate and emarginate.

Sternum. Long oval, longer than wide in ratio $33: 25$. Truncate in front and produced anteriorly beyond the first coxae. At the sides the sternum extends round the base of each coxa, so that the legs appear to be inserted in four pairs of foramina. The pleural membrane between carapace and sternum is reduced to a thin line. Surface of sternum coarsely granular and lightly clothed with fine hairs. Pedicle 0.58 mm . long, the lorum and plagula forming a hard chitinous tube between cephalothoras and abdomen.

Legs. 4. I. 2. 3. Coxae long and cylindrical, the first pair being longer than the others. The second pair widely separated from the third pair. Legs clothed with short simple hairs but devoid of spines. Trichobothria on tibiae, metatarsi and tarsi. All tarsi scopulate to base, the scopula extending on to the metatarsi. Two tarsal claws present, each with one large and one small tooth.

Palp. Genital bulb simple. Cymbium spoon-shape. Tibia and patella short and about equal in length. A small apophysis projects forward from the apex of the tibia on the retrolateral side (Fig. II).

Abdomen. Long, narrow and clothed with short simple hairs. The anterior half of dorsum protected by a chitinous scute, which is about half the width of the abdomen. On the ventral surface an epigastric scute surrounds the base of the pedicle and extends back to the epigastric furroxv. Spinnerets six, short, cylindrical and clothed with short hairs. The anterior and posterior pairs are about equal in length. The anterior pair separated by a space equal to their individual diameter, Middle pair partly hidden.

Female (pullus). Measurements in millimetres :

|  | Total le |  | - . | . $6 \cdot 380$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Length of carapace |  |  | . | . 2 . |  |
|  | Width of carapace |  |  | . - . | . 1 . |  |
|  | Length of abdomen |  |  | . . . | . 3-2 |  |
|  | Width of abdomen |  |  | $\cdots$. | . $1 \cdot 5$ |  |
| Leg | Femur | Patella | Tibia | Metatarsus | Tarsus | Total |
| 1. | 1.450 | 0.928 | I. 160 | 0.696 | 0.580 | $4 \cdot 814$ |
| 2. | I 334 | 0.870 | $1 \cdot 044$ | $0 \cdot 638$ | $0 \cdot 522$ | 4.408 |
| 3. | $1 \cdot 102$ | 0.580 | $0 \cdot 696$ | 0.696 | $0 \cdot 522$ | $3 \cdot 596$ |
|  | I. 450 | 0.870 | $1 \cdot 276$ | 1.160 | 0.638 | $5 \cdot 394$ |
| Palp | -. 580 | 0.290 | $0 \cdot 290$ | - | $0 \cdot 406$ | I $\cdot 566$ |

The female is slightly immature but resembles the male in form and general appearance. Only the following features need be described.

Colour (in alcohol). Like that of the male but somewhat paler. Carapace and chelicerae dark red. Lcgs yellowish except the first and second femora, which are reddish brown. Sternum and labium reddish. Dorsum of abdomen black with an irregular white bar across the middle. Dorsal scute orange suffused with black in front. A pair of white spots immediately behind scute and a single white spot above the spinnerets. Epigastric scute yellow, rest of ventral surface and sides white. Spinnerets white.

Palp. Tibia and patella short and cqual in length. Tarsal claw present.
Abdomen. Dorsal scute smaller and shorter than in the male. It partly covers the anterior quarter of the dorsum.

Locality: Reevesby Island. December 1936. J. Clark, Iô and I puilus.
Lampona asperrima somewhat resembles Lampona paupercula Simon, recorded from Western Australia. It differs, however, in the arrangement of the eyes, in the clothing of the carapace and in its larger size.

Family Clubionidae.
Genus Miturga Thorell i87o.
Miturga agelenina, Simon.
Miturga agelenina Simon, Die Fauna Süd-west Aust., I1, rgoy, p. 172
Locality: Reevesby Island. December I936. D. J. Mahony, 299.
Family Segestriddae.
Genus Ariadna Audouin, I825.

## Ariadna thyrianthina Simon.

Ariadna thyrianthina Simon, Die Fauna Süd-west Aust., I, 1908, p. 380.
Locality: Reevesby Island. Dccember 1936. J. Clark, Iq.
Family Oonopidae.
Genus Gamasomorpha Karscli, I88I. Gamasomorpha banksi sp. nov.
Male. Measurements in millimetres :


Colour (in alcohol). Yellowish brown, the carapace and legs being somewhat darker than the abdomen.

Carapace. Pyriform, widest between second and third coxac. In front wider than the eye-group in ratio $20: 16$. Moderately high, with steep posterior slope. Thoracic groove lacking. Dorsal surface of head region smooth but furnished with small hairs arranged as shown in Fig. 12. Surface of thoracic region marked with small close-set ridgcs. A radial row of three hairs on each side of posterior surface of carapace.

Ejes. Six, nocturnal, oval, in a compact group. Postcrior row slightly recurved and longer than the anterior row in ratio I6: It. Ratio of eyes AME: ALE:PMI: PLE $=0: 5: 5: 4$. The ALE separated from each other by $4 / 5$ of their long diamcter. PME contiguous and vcry slightly separated from PLE. The ALE are almost in contact with PME and PLE. Clypeus equal to $3 / 5$ of the long diameter of ALE and furnished with a transverse row of four hairs (Fig. I2).

Chelicerae. Small, conical, basal segment 0.274 mm . long. Teeth appear to be absent.

Labium. Free, conical, emarginate at apex, wider than long, rcaching beyond the middle of the maxillae.

Maxillae. Long, triangular, converging in front of labium,
Stermum. Shield-shape, truncate behind, longer than wide in ratio $35: 28$, slightly granular and furnished with a few long hairs. Laterally it is divided into lobes opposite the bases of the coxae (Fig, 13). All the coxac are ovoid. The fourth pair are separated by one and a half times their diameter.

Legs. 4. I. 2. 3. Lightly clothed with hairs, which under high magnification appear finely barbed. No spines are present. One trichobothrium on each metatarsus near the apex, and three on each tibia. Two tarsal claws on an onychium. Each claw appears to have on its outcr side four large teeth and on its inner side near the apex four minute teeth.

Palp. Femur small, patclla very large and swollen and projecting backward beyond the point of articulation with the femur. Tibia is the smallest segment. The genital bulb is completely enclosed in the tarsus (Fig. 14).

Abdomen. Dorsal and ventral scutes present. Both scutes have a polished appearance and arc clothed with short hairs. The dorsal scute covers almost the whole of the dorsal surface. However, the spinnerets, when extended, are visible from above. The ventral scute surrounds the base of the pedicle in front and reaches almost to the spinnerets behind. The epigastric furrow is not evident. The genital aperture is in a median position about $I / 4$ of the distance from the base of the pedicle to the posterior end of the abdomen. The two pulmonary spiracles are situated one on each side of the genital aperture, and a short distance bchind them are the two tracheal spiracles, connected to each other by a transverse groove. The two ends of this groove join a pair of short longitudinal grooves, which pass forward to the pulmonary spiracles (Fig. 13). Six spinnerets are present. They are partially surrounded by a chitinous ring, which is open on the dorsal side. The anterior spinnercts have a long cylindrical basal segment and a minute conical apical segment.

Female. Measurements in millimetres:

| Total length |  |  |  |  |  | I. 589 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Length of carapace |  |  |  |  |  | 0.685 |
| Width ol carapace |  |  |  |  |  | $0 \cdot 575$ |
| Length of abdomen |  |  |  |  |  | 0.959 |
| Widtla of abdomen |  | . |  |  |  | $0 \cdot 740$ |


| Leg | Femur | Patella | Tibia | Metatarsus | Tarsus | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. | 0.452 | 0.219 | 0.260 | 0.247 | 0.192 | 1.370 |
| 2. | 0.411 | 0.206 | 0.301 | 0.274 | 0.205 | 1.397 |
| 3. | 0.342 | 0.192 | 0.233 | 0.247 | 0.192 | 1.206 |
| 4. | 0.506 | 0.260 | 0.397 | 0.342 | 0.274 | 1.779 |
| Palp | $0.15 I$ | 0.123 | 0.164 | - | 0.191 | 0.629 |

The female resembles the malc in colouration, size and general appearance. Only the following features need be described.

Carapace. Oval, narrowed in front, emarginate behind. Dorsal surface of head region smonth but provided with short hairs arranged as in the male. Thoracic region and sides of head marked with fine close-set ridges.

Eyes. Six, nocturnal, oval arranged in a compact group. Posterior row slightly recurved and longer than the front row. Ratio of cyes AME: ALE : PME : PLE $=0: 6: 6: 4$. ALE are separated from each other by about $2 / 3$ of their long diameter. The head is wider than the eye-group in ratio $20: 16$.

Chelicerae. Conical, basal segment 0.288 mm . long, fang curved.
Labium. Free, conical, length almost equal to width at base. Apex reaching nearly to the ends of the maxillae.

Maxillae. Long, narrow, triangular, converging in front of lip. Scopula on inner side of apex.

Stermum. Shield-shape, truncate behind, longer than wide in ratio $32: 30$. Laterally divided into lobes as in the male.

Palpi. Clothed with fincly barbed hairs. Tarsus longer and thicker than other segments. Tarsal claw absent.

Abdomen. Dorsal and ventral scutes present as in the male. Both scutes clothed with fine short hairs. Dorsal scute covers the whole of the dorsal surface. Ventral scute surrounds the base of the pedicle anteriorly and extends almost to the spimerets pusteriorly. Two round sclerites are incorporated in the scute, one on each side of the pedicle. The epigastric furrow is clearly defined and bears the genital aperture in the middle and the pulmonary spiracles on cach side. The two tracheal spiracles are situated one on cach side close behind the pulmonary spiracles and are connected with each other by a shallow transverse groove. Spinnerets as in male.

Locality: Reevesby Island. December 1936. J. Clark 1 ô and 290.
Gamasomorpha banksi resembles Gamasomorpha loricata L. Koch in the form of the sternum but differs in size and in the scutes of the abdomen being smooth instead of pitted.

Gamasomorpha clarki sp. nov.
Male. Measurements in millimetres:


| Leg | Femur | Patella | Tibia | Metatarsus | Tarsus | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. | $0 \cdot 438$ | $0 \cdot 247$ | $0 \cdot 342$ | $0 \cdot 288$ | 0.260 | I 575 |
| 2. | 0.452 | 0.233 | $0 \cdot 260$ | $0 \cdot 260$ | 0.233 | I $\cdot 438$ |
| 3. | 0.425 | 0.205 | 0.247 | $0 \cdot 260$ | 0.274 | I.4 I I |
| 4. | 0.616 | 0.274 | $0 \cdot 425$ | 0.418 | 0.315 | $2 \cdot 041$ |
| Palp | $0 \cdot 151$ | $0 \cdot 1 \mathrm{yo}$ | $0 \cdot 123$ |  | $0 \cdot 219$ | $0 \cdot 603$ |

Colour (in alcohol). Uniform chestnut brown, except for the soft membranous parts which are whitish.

Carapace. Oval, convex, with steep posterior slope. Widest between second and third coxae. Narrowed in front, where it is wider than the eye-group in ratio 18 : 12. A few small hairs on head region. Thorax and sides of head finely granular. Thoracic groove lacking.

Eyes. Six, nocturnal, oval, arranged in a close group. Posterior row of eyes slightly recurved. Ratio of eyes AME:ALE: PME: PLE $=0: 6: 6: 5$. ALE separated from each other by about half their long diameter and from PLE by slightly less than a third of their long diameter. PME almost contiguous with each other and with PLE (Fig. 15). Clypeus vertical and equal to two thirds of the long diameter of ALE.

Chelicerae. Conical, directed downwards and slightly backwards. Basal segment 0.274 mm . long, clothed with a few long hairs in front.

Labium. Triangular, slightly wider than long, emarginate at apex, not fused with sternum and reaching beyond the middle of the maxillae.

Maxillae. Narrow and triangular, converging in front of labium.
Stermum. Heart-shape, truncate behind, not lobed laterally, slightly longer than wide in ratio $30: 29$. Surface convex, smooth, shining and clothed with a few long hairs (Fig. I6).

Legs. 4. I. 2. 3. Fourth pair of legs much longer than the others. Coxae oval, constricted near base. Legs clothed with a few long barbed hairs. Spines absent. Trichobothria on tibiae. Two tarsal claws mounted on an onychium are present.

Palp. Genital bulb very large, somewhat pear-shaped and ends in a fine pointed embolus and conductor. Tarsal segment much longer than the other segments. The form of the bulb is shown in Fig. I7.

Abdomen. Long oval in shape. Provided with dorsal and ventral scutes. The dorsal scute covers the whole of the dorsal surface. Anteriorly the ventral scute surrounds the base of the pedicle. It extends posteriorly to the base of the spinnerets. Both scutes are finely shagreened and clothed with a few short scattered hairs. Epigastric furrow not present. Genital aperture situated about one third of the length of the ventral scute from the base of the pedicle. The puimonary spiracles are situated one on each side of the genital aperture. The tracheal spiracles are a short distance behind the pulmonary spiracles and are connected to each other by a transverse groove. They are not connected with the pulmonary spiracles by longitudinal grooves as in the previous species (Fig. 16). Owing to the shrinkage of the abdomen the spinnerets arc partly withdrawn under the margin of the ventral scute and cannot be clearly seen.

Locality: Reevesby Island. December 1936. J. Clark Iơ.
Spiders recorded and described in the present paper, including the type specimens of the new species, are lodged in the National Museum, Melbourne.

## Acknowledgments

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